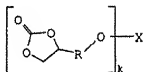


AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (currently amended): A process for modifying a substrate having one or more functional groups selected from hydroxyl groups and primary and secondary amino groups, the process comprising contacting at least one substrate with a compound of formula I or II under conditions such that the functional groups react, with opening of the 1,3-dioxolane ring or 1,3-diazaheptane ring and formation of a covalent bond, with the compound of formula I or II



I



II

in which

R is C₁-C₁₂-alkylene;

if k is 1, X is CO-CH=CH₂, CO-O-aryl, C₂-C₆-alkylene-SO₂-CH=CH₂ or CO-NH-R¹; and

R¹ is C₁-C₃₀-alkyl, C₁-C₃₀-haloalkyl, C₁-C₃₀-hydroxyalkyl, C₁-C₆-alkoxy-C₁-C₃₀-alkyl, C₁-C₆-alkylcarbonyloxy-C₁-C₃₀-alkyl, amino-C₁-C₃₀-alkyl, mono- or di(C₁-C₆-alkyl)amino-C₁-C₃₀-alkyl, ammonio-C₁-C₃₀-alkyl, polyoxyalkylene-C₁-C₃₀-alkyl, polysiloxanyl-C₁-C₃₀-alkyl, (meth)acryloyloxy-C₁-C₃₀-alkyl, sulfono C₁-C₃₀ alkyl, phosphono-C₁-C₃₀-alkyl, di(C₁-C₆-alkyl)phosphono-C₁-C₃₀-alkyl, phosphonato-C₁-C₃₀-alkyl, di(C₁-C₆-alkyl)phosphonato-C₁-C₃₀-alkyl or a saccharide radical and,

if k is an integer of more than 1, X is (i) the radical of a polyamine to which the moiety in brackets in the formula is bonded via (CO)NH groups, or (ii) a polymeric skeleton to which the moiety in brackets in the formula is bonded via (CO), NH-C₂-C₆-alkylene-O-(CO) or (CO)-O-

C₂-C₆-alkylene-O(CO) groups.

2. (currently amended): The process of claim 1, wherein the substrate is selected from the group consisting of ~~biomolecules, polymers and surfaces~~ a biomolecule, a polymer and a surface.

3. (previously presented): The process of claim 2, wherein the substrate is a polymer.

4. (previously presented): The process of claim 3, wherein in the compound of the formula I or II, X is CO-NH-R¹ and one or more of the radicals R¹ is ammonioalkyl.

5. (previously presented): The process of claim 4, wherein at least one of the radicals R¹ is not ammonioalkyl.

6. (previously presented): The process of claim 1, wherein the compound of the formula I or II is contacted with a first substrate under conditions such that a covalent bond forms between a first end of the compound of the formula I or II and the first substrate, then the reaction product is contacted with a second substrate under conditions such that a covalent bond forms between a second end of the compound of the formula I or II and the second substrate.

7. (previously presented): The of claim 6, wherein at least one of the first or second substrate is selected from the group consisting of biomolecules, polymers and surfaces.

8. (previously presented): The process of claim 7, wherein at least one polymer is selected from the group consisting of polyalkyleneamines, polyvinylamine, polyallylamine, polyethylenimine, chitosan, polyamide/epichlorohydrin resins, polyaminostyrene, peptides and proteins.

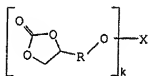
9. (currently amended): The process of claim 1, wherein the compound of formula I is selected from the group consisting of

4-phenyloxycarbonyloxymethyl-2-oxo-1,3-dioxolane,

4-(4-phenyloxycarbonyloxy) butyl-2-oxo-1,3-dioxolane,

4-(2-oxo-1,3-dioxolan-4-yl)butyl acrylate,
— 4-(2-oxo-1,3-dioxolan-4-yl)butyl methacrylate, and
4-(vinylsulfonylethoxy)butyl-2-oxo-1,3-dioxolane.

10. (currently amended): A compound of formula I or II



I



II

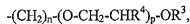
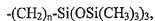
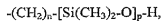
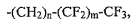
in which R is C₁-C₁₂-alkylene;

if k is 1, X is C₂-C₆-alkylene-SO₂-CH=CH₂ or CO-NH-R¹; and R¹ is C₁-C₃₀-alkyl, C₁-C₃₀-haloalkyl, C₁-C₃₀-hydroxyalkyl, C₁-C₃₀-hydroxyalkyl, C₁-C₆-alkoxy-C₁-C₃₀-alkyl, C₁-C₆-alkylcarbonyloxy-C₁-C₃₀-alkyl, amino-C₁-C₃₀-alkyl, mono- or di(C₁-C₆-alkyl)amino-C₁-C₃₀-alkyl, ammonio-C₁-C₃₀-alkyl, polyoxyalkylene-C₁-C₃₀-alkyl, polysiloxanyl-C₁-C₃₀-alkyl, sulfono-C₁-C₃₀-alkyl, phosphono-C₁-C₃₀-alkyl, di(C₁-C₆-alkyl)phosphono-C₁-C₃₀-alkyl, phosphonato-C₁-C₃₀-alkyl, di(C₁-C₆-alkyl)phosphonato-C₁-C₃₀-alkyl or a saccharide radical and,

if R is C₂-C₁₂-alkylene, X may also be CO-aryl, CO-CH=CH₂ or (meth)acryloyloxy-C₁-C₃₀-alkyl-NH-CO,

or if k is an integer of more than 1, X is the radical of a polyamine to which the moiety in brackets in the formula is bonded via (CO)NH groups, wherein the polyamine is selected from the group consisting of dialkylenetriamines, polydimethylsiloxanes having aminoalkyl groups, polyvinylamine, polyallylamine, polyethylenimine, chitosan, polyamide/epichlorohydrin resins, polyaminostyrene, peptides and proteins.

11. (previously presented): The compound of claim 10, in which R¹ is



or a saccharide radical,

wherein R² is C₁-C₁₈-alkylene, R³ is C₁-C₁₈-alkyl or benzyl and R⁴ is hydrogen or methyl,

Y is one equivalent of an anion,

n and m independently are integers from 0 to 12; and

p is an integer from 1 to 100.

12. (currently amended): The compound of claim 10, wherein the compound is selected from the group consisting of

4-(4-phenyloxycarbonyloxy) butyl-2-oxo-1,3-dioxolane;

~~4-(2-oxo-1,3-dioxolan-4-yl)butyl acrylate,~~

and

4-(vinylsulfonylethoxy) butyl-2-oxo-1,3-dioxolane.

13. (previously presented): A modified polymer obtained by the process of claim 3.
14. (canceled)
15. (previously presented): A finish, dispersant, emulsifier, adhesion promoter, adhesive or contact adhesive for modifying surfaces or for immobilizing active substances comprising the polymer of claim 13.